

Translation

PATENT COOPERATION TREATY

PCT/EP2003/00733



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference O.Z. 6076-WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/007335	International filing date (day/month/year) 08 July 2003 (08.07.2003)	Priority date (day/month/year) 24 August 2002 (24.08.2002)
International Patent Classification (IPC) or national classification and IPC H01M 2/16		
Applicant CREAVIS GESELLSCHAFT FÜR TECHNOLOGIE UND INNOVATION MBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 10 December 2003 (10.12.2003)	Date of completion of this report 18 October 2004 (18.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/007335

I. Basis of the report

1. With regard to the elements of the international application:*

☐ the international application as originally filed☒ the description:

pages _____ 1-26 _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☒ the claims:

pages _____ 1-25 _____, as originally filed

pages _____, as amended (together with any statement under Article 19

pages _____, filed with the demand

pages _____, filed with the letter of _____

☒ the drawings:

pages _____ 1/3-3/3 _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

☐ the sequence listing part of the description:

pages _____, as originally filed

pages _____, filed with the demand

pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☐ The amendments have resulted in the cancellation of:☐ the description, pages _____☐ the claims, Nos. _____☐ the drawings, sheets/fig _____5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/EP 03/07335

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1-25	NO
Inventive step (IS)	Claims		YES
	Claims	1-25	NO
Industrial applicability (IA)	Claims	1-25	YES
	Claims		NO

2. Citations and explanations

1. The following documents are cited:

D1: WO 2004/021499 A (HENNIGE VOLKER; HOERPEL GERHARD (DE); HYING CHRISTIAN (DE); CREAVIS T) 11 March 2004 (2004-03-11)
D2: EP-A-0 951 080 (CELGARD LLC) 20 October 1999 (1999-10-20)

2. D2 discloses a separator having a cutoff function and consisting of a laminate of three microporous membranes, the middle membrane containing CaCO₃ particles as filler. They can be coated with calcium stearate, i.e. the salt of a fatty acid which melts at approximately 180°C and is therefore suitable for cutoff particles (see column 5, line 31, to column 6, line 19, and column 7, lines 35 to 50). With this arrangement, the porous polyethylene layer 14, obtained by stretching and shown in figure 1, assumes the function of the porous substrate. The wording of claim 1 ("comprising") does not exclude further components (e.g. further microporous membranes). Column 1, lines 16 to 26, indicates that the problem to be solved is to be considered in

conjunction with the use of the separator in lithium batteries.

3. In light of this prior art, the subject matter of independent claims 1, 11, 24 and 25 and of dependent claims 2 to 10 and 12 to 23 lacks the requisite novelty. These claims fail to meet the requirements of PCT Article 33(2) and(3).
4. Reference is already made to D1, which likewise discloses a separator with inorganic particles which can in turn be coated with cutoff particles (see, for example, page 22, line 14, to page 23, line 8). This disclosure could be relevant in the regional phase.
5. In claim 12, the second back-reference is obviously wrong.